Drill bit holder/ bit change-over device.

The invention describes a holder 1, fig. 1 for storing and retaining a number of drill bits 2, which are used for screwing in and unscrewing screws.
The bits 2 are used together with a magnetic bit holder 6, fig. 3, which is mounted on a powered screwdriver 5, fig. 4.

The bits are inserted into the magnetic bit holder 6, and screws can now be driven into or dismounted from a material such as wood, for example.

Holders available on the market today consist mostly of a kind of box or container which must be retrieved and opened, and then the bit must be changed manually from the box to the magnetic bit holder or *vice versa* when changing to a screw with a different slot.
Two hands are needed to carry out the change-over. The change-over is relatively awkward and time-consuming; the bits are small and can be difficult to keep hold of. Often, the bits will end in a pocket together with other bits, and this presents the problem of finding the correct one at the next bit change-over.

The invention will be explained in detail below referring to the drawing, on which

fig. 1, full-size and in profile, shows a holder for screw bits according to the invention,

fig. 2, at a reduced scale, shows a holder for screw bits according to the invention,

fig. 3 shows a magnetic bit holder, and

fig. 4 shows a powered screwdriver.

The special feature achieved by this invention is keeping the bits 2 in one place, as well as being able to change a bit 2 without holding it manually. You can keep the powered screwdriver in your working hand and take the holder 1 with the other hand.
The holder 1 could also be attached to clothing, a belt, an arm and so on. It could be fastened using a clip, a buckle, velcro or similar. It will be possible to effect the change-over using only one hand, namely the hand holding the powered screwdriver 4. This may be essential if you need the other hand to hold on when working on a ladder, for example.
The change-over will be fast and it will be easy to find the correct bit 2, as the tip 4 of the bit 2 is visible.

The holder 1 is executed in an elastic material which regains its shape and is durable. The holder 1 could be executed in an elastomeric material such as PUR.

The holder 1 has been provided with holes of a dimension which will retain the bits 2 (approximately 6 m/m). The bits 2 are positioned with the sockets 3 outwards, thereby facilitating getting hold of the socket 3 with the magnetic bit holder 6, and with the tip 4 visibly inwards.

The holder may assume alternative shapes depending on whether it will be kept in a pocket, on a belt, or whether it will be attached to clothing or maybe to the powered screwdriver 6 etc.
The bits 2 are retained in the holder 1 because the hole is smaller than the dimension of the individual bit 2, whereby the elastic material will squeeze around the bit 2 and retain it in the holder 1. To deposit the bit 2 in the holder 1, the tip 4 is inserted into the hole of the holder 1 and by letting the powered screwdriver 5 rotate slightly, the bit can be pressed into the hole. When the bit 2 rotates, the friction between the bit 2 and the elastic material will decrease, and one can easily press the bit 2 into place in the holder 1 where it will remain firmly in place when the rotating stops, sufficiently to enable the magnetic bit holder 6 to be freed from the bit 2 which will then be deposited into the holder 1.

To free the bit 2 from the holder 1, the magnetic bit holder 6 is once more placed over the bit 2 and the powered screwdriver 5 is allowed to rotate slightly. When the bit 2 rotates, the elastic material will (with a slight pull) and due to the bit's shape automatically push the bit 2 free of the holder, and the bit 2 will be repositioned in the magnetic bit holder 6.

The holder may be executed in an elastomeric material such as PUR. The illustrated holder 1, fig. 1 is executed by cutting both shape and holes from a 15 mm sheet of PUR. In the event of production, the holder can be extruded in the same material. The holder is developed to function with bits 2 and magnetic bit holders 6 presently available on the market.

The holder may assume several alternative shapes and be provided with a clip, buckle or other device whereby it can be attached to clothing, a belt and so on.

Text items such as bit dimension could be embossed on to the holder in the extruding process.